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TO: Each Supervisor

FROM: Jonathan E. Fielding, M.D., M.P.H. J E Fielding MD
Director and Health Officer

SUBJECT: **MISLABELED SEAFOOD SOLD IN RESTAURANTS AND GROCERY STORES OVERVIEW**

In response to a motion by your Board on April 24, 2012, the Department of Public Health (DPH) was directed to contact federal and State agencies to identify gaps in local import inspections that may be strengthened through collaborative agency efforts. DPH was further directed to assess the feasibility of using the Food and Drug Administration's (FDA) specialized laboratories for species testing of fish. The motion instructed DPH to report back on the actions that can be taken by County, State, and Federal agencies to address fraudulent/unsafe retail and wholesale practices regarding seafood species substitution referenced in recent press reports.

Background

In a memo dated May 4, 2012, DPH notified your Board of collaborative efforts in conjunction with the California Department of Public Health Food and Drug Branch (FDB) and the Food and Drug Administration (FDA) to develop a Seafood Task Force (STF) to conduct a survey of retail and wholesale food facilities that distribute or sell seafood in Los Angeles County. The survey would determine if and where misbranding occurs, and if so, to what extent. FDA laboratories were also made available as needed for species identification. Since May, the STF has convened with representatives from the following agencies: FDB, FDA, DPH Environmental Health, and National Oceanic and Atmospheric Administration (NOAA).

Methods

The STF conducted seafood surveys at various retail food markets and restaurants countywide. The survey process involved three phases:

Phase I: In Phase I, the STF developed the survey parameters, which included identifying sites, organizing survey teams, developing inspection protocols, formatting data collection, establishing referral and enforcement procedures, and creating sample/evidence collection protocols. The food facilities selected for the survey reflected the diversity of business models countywide and were chosen based on foods offered for sale (i.e. seafood) as well as information gathered from a previous survey conducted by an environmental conservation organization. A pilot survey of six food facilities was conducted and helped to identify data collection methods requiring enhancements.

Phase II: During Phase II, seafood field surveys were initiated, and enforcement actions were taken as needed. Seafood that was identified as possibly misbranded due to discrepancies with bulk labels or invoices, led to further investigation by FDA and/or FDB of the wholesale suppliers and importers. Samples were collected for laboratory analysis in cases where unapproved additives, undeclared ingredients, or species substitution was suspected but could not be verified onsite.

Phase III: Phase III involved the analysis of survey data, enforcement actions, and outcomes of follow-up investigations. STF participants convened to discuss survey findings and the potential next steps needed to reduce the incidence of misbranding and falsely advertised seafood. A review of the survey data and enforcement actions was conducted, resulting in this final report.

Survey Results

A total of 103 retail food facilities were surveyed including 66 restaurants and 37 food markets. Seventy four percent (74%) of the facilities investigated had seafood label misbranding or false and/or misleading advertisement on menus, menu boards, or display cards, totaling over 180 violations. Label violations included species substitution, undeclared allergens, incorrect point of origin, and/or failure to disclose country of origin. Menu violations included species substitution and incorrect point of origin and/or cultivation.

Species substitutions identified in the survey were similar to common substitutions identified by the Center for Food Safety and Applied Nutrition (CFSAN).[1]

Seafood Offered	CFSAN (less expensive substitute)	Our Survey (less expensive substitute)
Red Snapper	Rockfish	Rockfish, Tai, Tilapia, Ocean Perch
Cod	Alaska Pollock	Red Rock Vermillion, Rock fish
Halibut	Sea Bass	Flounder
Dover Sole	Arrowtooth Flounder	Variations other than Dover Sole
Snapper (Lutjanus sp.)	Tilapia	Tilapia, Pollock
Lake or Yellow Perch	White Perch or Zander	Tilapia
Blue Crabmeat	Imported Crabmeat	Crabmeat

Below are findings on specific species:

Tuna

Eight (10%) of the food facilities found in violation of species substitution advertised "white tuna" but served escolar. It should be noted that there is no species or standard of identity with the designation of "white tuna." More importantly, the substituted escolar is the only seafood product in the survey that potentially poses a significant health risk. For some consumers, consumption of escolar can result in adverse health effects including, but not limited to, gastrointestinal illness. Tuna accounted for the third largest number of substitutions.

Lobster

Crawfish or langostino was substituted for lobster in 8 (10%) of the food facilities found in violation of labeling requirements. In these instances, species substitutions of this type represent economic fraud as lobster is generally more expensive than its substitutions.

Snapper, Red Snapper

Species substitution for red snapper typically involved tilapia, rockfish, pollock, or tai seabream. Substitutions of this type occurred in 19 (25%) food facilities found in violation. In nine other food facilities, snapper (not red snapper) was either misbranded or wrongly advertised due to incorrect market name, lack of country of origin information, or to a lesser extent, species substitution. Overall, the various snapper species accounted for the largest number of substitutions.

Crab

Imitation crab was substituted for crab in 6 (8%) of the food facilities found in violation. In addition to imitation crab, a variety of other crab species were substituted for what was advertised. For example, Norwegian King Crab was substituted for Alaskan King Crab. Crab accounted for the second largest number of substitutions.

Salmon

False advertisement and misbranding violations involving labeling, country of origin, point of origin and farmed versus caught wild was observed in 14 (18%) food facilities found in violation.

Halibut

Striped bass, fluke, and turbot were substituted for Halibut in 8 (10.5%) food facilities found in violation. Additionally, advertisement and/or labeling violations were observed in these facilities.

Results of Laboratory Testing

In some cases, seafood products reviewed during the survey could not be identified onsite, or were suspected of containing undisclosed ingredients. When this occurred product samples were collected and submitted for laboratory analysis. A total of 12 samples were analyzed, resulting in the following:

Species Labeled As	Species Invoiced As	Results of Laboratory Analysis
Shrimp and Salt	Shrimp and Salt	Shrimp and Salt with undeclared allergens. Class II recall of Cooked Shrimp Meat initiated
Pacific Red Snapper	Pacific Red Snapper from Canada	Ocean Perch
Loup de Mer	Loup de Mer	Loup de Mer is a vernacular term. Unsuccessful identification of fillet to any species of fish
Red Snapper Fillet, Canada Wild	Snapper, Red Fillet Wild Origin: Canada	Pacific Ocean Perch
Fresh Halibut Steak-USA Wild	Fluke Trip Gulf…Origin Mexico	Type of Flounder, which is not to marketed as Fluke or Halibut
Halibut	Fluke	Type of Flounder, which is not to marketed as Fluke or Halibut
Imitation Crab Flakes, listed ingredient SPAN 80 (unapproved food additive)	Imitation Crab Flakes	Imitation Crab Flakes, additive ingredient identified as Carmine (Natural Red #4)
Cooked Salad Shrimp, ingredients Red #3, paprika	Cooked Salad Shrimp	Cooked Shrimp containing undeclared allergen FD&C Red #4
Dover Sole	Dover Sole	European Dover Sole
Dover Sole	Dover Sole	Dover Sole
Dried Anchovy	Dried Anchovy	Samples tested for C. botulism. Laboratory. Lab results pending
Dried Boiled Anchovy	Dried Boiled Anchovy	Samples tested for C. botulism. Laboratory. Lab results pending

Fraud

There are many types of food fraud such as short weights/counts, species substitution, over-treating, added water weight, and altered color. However, the STF survey focused primarily on species substitution. Deceptive practices occur when restaurants misrepresent menu items to their patrons by substituting other (often less desirable and less expensive) products for an item known to be a higher-valued food product. The flesh of many fish species is similar in taste and texture making it difficult to identify species in fillet form, especially after preparation for consumption.[1]

Common Names

The correct use of names is crucial for properly identifying seafood. The FDA and the National Marine Fisheries Service have cooperated to develop "The Fish List," compiling existing acceptable market names for imported and domestically available seafood. In 1988, FDA published "A Guide to Acceptable Market Names for Seafood Sold in Interstate Commerce" (also known as "The Fish List"). The Guide provided an authoritative source of common names to establish order in the marketplace, reducing confusion among consumers. In 1993, FDA published an updated, expanded version of the Fish List and renamed it the "Seafood List." The Seafood List includes invertebrate species (mollusks and crustaceans) as well as finfish. The List is frequently updated and reflects what FDA considers the most appropriate market names for the identification and labeling of seafood. It is the agency's primary guidance for naming seafood sold in interstate commerce.[1]

Country-of-Origin / Point-of-Origin

In 2002, the federal government passed legislation requiring retail grocers to identify certain agricultural products by using a country of origin label. A primary purpose of the law is to ensure consumers can make informed decisions regarding purchasing domestic versus imported foods. Conversely, according to State and federal law, point-of-origin labeling is optional for retailers, but when used, the labeling must be accurate.

Legal Authority

The FDA is the primary agency responsible for ensuring that food sold in interstate commerce is properly labeled. FDA's jurisdiction includes seafood and the agency operates the Seafood Regulatory Program for fishery product compliance. The primary federal law used to addresses mislabeling is the Federal Food, Drug, and Cosmetic Act of 1938 (FFDCA; 21 U.S.C. §§ 301 et seq.). The Department of Commerce, through its NOAA division, is another federal agency that has regulatory oversight of fishery products.

The FDB is the State agency responsible for ensuring that food sold in intrastate commerce is properly labeled. The primary State law that addresses misbranding is Sherman Food, Drug, and Cosmetic Law (SFDCL) and is consistent with the Code of Federal Regulations, Title 21, §§ 101.3 and 101.18 (Misbranding of Food).

Locally, DPH Environmental Health enforces the California Health and Safety Code, California Retail Food Code (article 8, section 114087) for labeling standards and misrepresented consumer foods.

Enforcement

Retail Food Facilities

Notice to attend an office hearing were issued to thirty-one food facilities that could not correct observed violations at the time of inspection. In such cases, operators presented revisions of their menus for compliance review at the time of the office hearing. Inspections or investigations revealing more egregious cases of false or misleading advertisement are being referred to the City or District Attorney as appropriate to pursue further legal action.

Distributors/Importers

FDA and FDB conducted follow up investigations regarding misbranding for seven distributors from findings at eleven retail food facilities. STF survey findings at seven other retail food facilities also led to an investigation referral to the FDA and FDB for an additional seven distributors. These referrals detailed concerns involving invoices (e.g. missing country of origin, hand-written alterations to invoices, itemized identification of escolar as super white tuna, etc.), or packaged product labeling (e.g. pangasius packaged with a prominent brand name "White Ruffy" and a seafood product packaged as "Swai-Basa" which is the market name for two different fish species). Overall, 18 (24%) of the 76 retail food facilities found in violation had suspected misbranding involving label or invoice information provided by a distributor/importer. The FDA/FDB investigations are on-going.

Variables Impacting Compliance

Language

Language presents a challenge for many food facility operators who find it difficult to read labels and invoices written in English. Additionally, the same species may have a variety of different names depending on the language used/region of the world. This may manifest in misbranding and false advertising on menu boards, menus, display cases, etc. Adding to this challenge is misspelling, which has also resulted in misbranding and led to advertising violations.

Demand &Technical Issues

Due to the popularity of snapper around the world, imitation product and/or substitute species have surfaced to meet the demand. For example, a recent study revealed that 77% of the fish sold in the U.S. marketplace as red snapper, *Lutjanus campechanus*, belonged to other species of the *Lutjanidae* family, and could not legally be labeled as "red snapper."[2] Red Snapper is the most confusing fish on the FDA Seafood List. Red Snapper is a fish only found in the northern, and to a lesser degree, western Gulf of Mexico. To complicate matters, Pacific Red Snapper is an approved name for Pacific Rockfish in California, Oregon, and Washington. However, this term only applies if the rockfish is caught and sold in the same state. For example, if caught in Oregon and sold in California, the rockfish cannot be called Pacific Red Snapper.

Next Steps

In summary, the survey findings revealed a pervasive deficiency in seafood label and menu disclosure wherein product information was found to be commonly inaccurate or false. The inaccuracies were noted at all levels (retail, wholesale and import) of seafood commerce.

In order to address these practices, EH has initiated corrective actions. These actions include: continuing efforts to address seafood substitution with State and Federal partners, providing training on seafood fraud for DPH Environmental Health staff, expanding routine inspections to include a check for seafood labels and menu accuracies, and implementing subsequent enforcement actions to ensure compliance with consumer protection laws. Lastly, DPH will host seafood workshops designed to inform food facility operators of label and menu regulations associated with the retail and wholesale distribution of seafood.

If you have any questions or would like additional information, please let me know.

JEF:tp
PH:1204:004

c: Chief Executive Officer
County Counsel
Executive Officer, Board of Supervisors

[1] Buck, E. (2010, July 2). Seafood Marketing: Combating Fraud and Deception. *National Legal Law Center*. Retrieved September 20, 2012, from http://www.nationalaglawcenter.org/assets/crs/RL34124.pdf

[2](P.B. Marko, et al.,"Mislabeling of a Depleted Reef Fish." *Nature*, v. 430(2004):309-310.